

REMARKS

This is in response to the Office Action mailed December 17, 2008. A Petition for a three month extension of time to file this Response together with fee accompanies this Response.

Claims 34, 35, 37 to 55 are now in this application. In this amendment, claims 34, 40, 50 and 52 have been amended. Broadly speaking, the claims have been amended by incorporating the content of claims 36 and 40 into claim 34 and other independent claims. Claim 36 has been cancelled without prejudice.

It is submitted that the claims as amended define over the art cited and applied by the Examiner. Based on the claims as amended and the discussion below, favorable reconsideration and allowance of all of the claims is respectfully requested.

In the Office Action, the Examiner has found that claims 39, 44 to 48, 50 to 51 and 55 contain allowable subject matter. Applicant appreciates this finding by the Examiner. In view of the amendments to the claims herein, it is submitted that all claims are now allowable.

Claim 34 to 38, 43, 49 and 52 to 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Marsden.

Claims 40 to 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marsden.

Marsden discloses a method for improving metals recovery using high temperature leaching. In particular, a pressure leaching vessel, such as a sealed, multi-compartment pressure leaching vessel, is provided for high temperature pressure leaching. Thus, metal-bearing material (and other components) is fed into the leaching vessel. The resulting product slurry from the pressure leaching vessel may then be flashed in an atmospheric flash tank or other suitable vessel to release pressure and to evaporatively cool the product slurry through the release of steam to form a flashed product slurry. The flashed product slurry may be directed to a solid-liquid separation apparatus to form a liquid stream and a residue. The residue may be recycled back to the pressure leaching vessel and/or be discarded or subjected to further metal recovery.

Although not expressly stated, the use of the phrase "product slurry" suggests that the resulting product slurry exits the final compartment of the leaching vessel. In the present invention, as set forth in the amended independent claims 34 and 52, the first compartment of the autoclave is flashed, as opposed to the discharge stream emanating from the autoclave, as disclosed in Marsden. The flash underflow is then subjected to a solid-liquid

separation to produce a solids fraction and an aqueous fraction, with the solids fraction then being returned to the first compartment of the autoclave, and a portion of the aqueous fraction also being returned to the first compartment of the autoclave.

Thus, the distinctive feature of the Flash Thickener Recycle process of the present invention is that the liquid containing the value metals or the leachate is produced from at least the first and the final compartment of the autoclave. This concept is not disclosed in Marsden. The Flash Thickener Recycle process in the present patent application is proposing discharging leachate from at least the first and the final compartment, and in so doing increasing the capacity of the autoclave by 200% or more by providing a means for the increased retention time of the solids fraction within the autoclave. It is this very simultaneous dual discharge that sets the Flash Thickener Recycle concept apart from the prior art, including Marsden, and represents a significant enhancement that is not merely "optimization", as suggested by the Examiner. Thus, whereas Marsden produces leachate from the final compartment, the present invention incorporates a solid-liquid separation process on the first compartment, which makes it possible to produce leachate from the first compartment too. As mentioned, this feature permits a significant capacity increase in exothermic autoclaves.

The use of a thickener or solid-liquid separation means located at the discharge end of the circuit does form part of the state of the art. This acts as a solids concentration tool ahead of the next process step in the metal recovery flowsheet, but, significantly, does not play a part in adding capacity to the autoclave upstream of the autoclave. However, the solid-liquid separation of the flash underflow from the first compartment, as newly claimed in the present invention, is unique and does not amount to solid-liquid separation of the discharged material from the final compartment of the autoclave, as per the prior art.

In view of the discussion above, as well as the claim amendments, favorable reconsideration and allowance of all the claims pending in this application is respectfully requested.

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If the Examiner has any questions, he is invited to contact the undersigned at (818)710-2788.

Please acknowledge receipt hereof by stamping and returning the enclosed postcard.

Respectfully submitted,




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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on June 12, 2009.



Colin P. Abrahams